

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,605	06/28/2001	Dave Langridge	0584-1043	5113

7590

08/09/2004

Lee, Mann, Smith, McWilliams, Sweeney & Ohlson
P.O. Box 2786
Chicago, IL 60690-2786

EXAMINER

LIN, KELVIN Y

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,605

Applicant(s)

LANGRIDGE ET AL.

Examiner

Kelvin Lin

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/28/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description:
 - a. "9"
2. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16 are rejected under 35 U.S.C 102(e) as being anticipated by Hermann (US Patent 6606667).
4. Regarding claim 1, Herman teaches a communication network comprising:
 - (a) a plurality of switching nodes (Hermann, col. 3, l. 32),
 - (b) a plurality of network spans each comprising a working span and a protection span and arranged to interconnect the switching nodes in a

ring configuration (Hermann, col. 1, l. 55)

(c)

- a network controller (ADM) arranged to control switching of data in the network between the working and protection spans, the network being arranged to carry working data on the working spans and a portion of working data on the protection spans, the portion carried on the protection span having a bandwidth less than the maximum bandwidth of the protection spans, (Hermann, col. 1, l. 59-60),
- and the network controller being arranged in the event of a failure in a working span, to cause the switches to perform a span switch by switching a portion of the working data bandwidth being carried on the working span to the unused bandwidth on the protection span for the span having the working span failure and to perform a ring switch by switching the remainder of the working data bandwidth carried on the working span to the unused bandwidth on the protection spans of the other spans in the ring (Hermann, col. 4, l. 54-55),
- the network controller being further arranged in the event of a failure in a protection span to cause the switches to perform a ring switch to switch the portional bandwidth of the working data the unused bandwidth on the protection spans of the other spans in the ring (Hermann, col. 8, l. 53).

5. Regarding claim 2, Hermann further discloses a network according to claim 1,

wherein the network controller (ADM) is integral with a least one of the switching nodes (Hermann, col. 1, l. 58-59).

6. Regarding claim 3, Hermann further discloses a network according to claim 1, wherein the spans are carried over optical fibers (Hermann, col. 7, l. 52-53).
7. Regarding claim 4, Hermann further discloses a network according to claim 1, wherein the data is transmitted over the network using a protocol selected from a group containing SONET and SDH (Hermann, col. 1, l. 28).
8. Regarding claim 5, Hermann further discloses a network according to claim 1, wherein the bandwidth on the protection spans not used for working data before a failure in a working span is at least half the maximum bandwidth of the protection spans. (Hermann, col. 8, l. 8).
9. Regarding claim 6, Hermann further discloses a network according to claim 1, wherein the bandwidth on the protection spans not used for working data before a failure in a protection span is at least half the maximum bandwidth of the protection spans (Hermann, col. 8, l. 8).
10. Regarding claim 7-10 have similar limitation as claim 1.C, 2, 5-6. Therefore, claim 7-9 are rejected under Hermann for the same reason set forth in the rejection of claim 1.C, 2, 5-6.
11. Regarding claim 11-13 have similar limitation as claim 1.C, 5-6. Therefore, Claim 11-13 are rejected under Hermann for the same reason set forth in the rejection of claim 11-13.
12. Regarding claim 14, Hermann further discloses a method of transmitting data

over a communications network, the network having a plurality of switching nodes interconnected in a ring configuration, and each network span having a protection span and a working span, the method comprising:

- a. Transmitting working data over each working span at a bandwidth Up to the maximum bandwidth of the working span – all of the bandwidth on the working line will be used to carry working traffic (Hermann, col. 5, l. 26-27),
- b. Transmitting working data over each protection span at a portional bandwidth which is less than the maximum bandwidth of the protection span (Hermann, col. 6, l. 17-25),
- c. In the event of a failure in a working span, performing a span switch by switching a portion of the working data bandwidth to the unused bandwidth on the protection span for the span having the working span failure and performing a ring switch by switching the remainder of the working data bandwidth to the unused bandwidth on the protection spans of the other spans in the ring (Hermann, col. 4, l. 54-55).
- d. In the event of a failure in a protection span, performing a ring switch by switchin the portional bandwidth of the working data to the unused bandwidth on the protection spans of the other span in the ring (Hermann, col. 4, l. 36-39).

13. Regarding claim 15, Hermann further discloses a method according to claim 14,

wherein the bandwidth on the protection spans not used for working data before a failure in a working span is at least half the maximum bandwidth of the protection spans (Hermann, col. 6, l.33-34).

14. Regarding claim 16, Hermann further discloses a method according to claim 14, wherein the bandwidth on the protection spans not used for working data before a failure in a protection span is at least half the maximum of the protection spans (Hermann, col. 8, l. 8).

Conclusion

The prior art made of record and not relied upon is considered pertinent to application's disclosure.

- Usuba et al., Patent No. (6614754) Bi-Directional Line Switch Ring Network System.
- Martin et al., Patent No. (6205158) Network Architectures with Transparent Transport Capabilities.
- Ester et al., Patent No. (6163527) Method and Apparatus for an Optical Bi-Directional Line Switched Ring Data Communications System.
- Takatori et al., Patent No (5600631) Self-Healing Ring Switch and Method of Controlling the Same

Art Unit: 2142

- NPL - Bellcore, Bell Communications Research, Technical Advisory TA-NWT-001230, Issue 2, Apr. 1992: Sonet Bidirectional Line Switched Ring Equipment Generic Criteria.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 703-605-1726.

The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kyl
7/26/04


JACK B. HARVEY
SUPERVISORY PATENT EXAMINER